GAO

United States General Accounting Office

Report to the Chairman, Subcommittee on Environment, Energy, and Natural Resources, Committee on Government Operations, House of Representatives

February 1988

TOXIC SUBSTANCES

PCB Enforcement in Kansas City Region Substantiates Need for Further Program Improvements

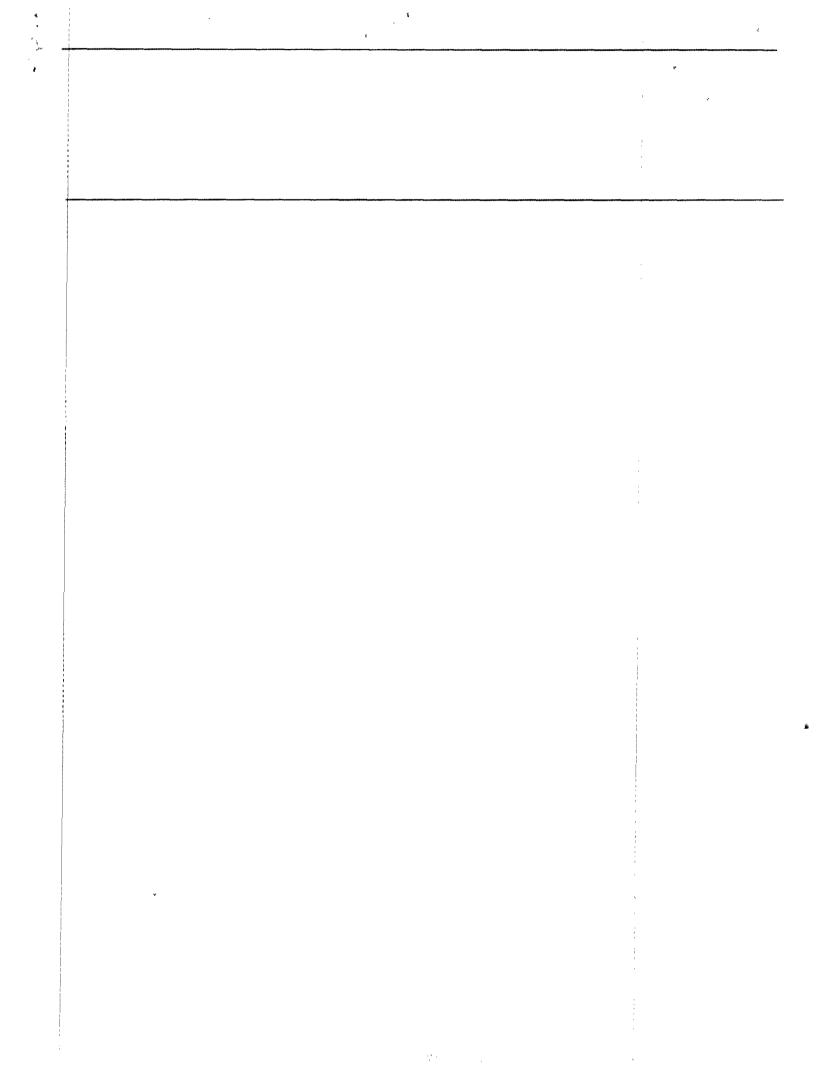




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United States General Accounting Office Washington, D.C. 20548

Resources, Community, and Economic Development Division

B-203051

February 26, 1988

The Honorable Mike Synar Chairman, Subcommittee on Environment, Energy, and Natural Resources Committee on Government Operations House of Representatives

Dear Mr. Chairman:

This report responds to your August 29, 1986, request and subsequent discussions with your office. You asked us to determine how the Environmental Protection Agency (EPA) was overseeing the operation of companies handling polychlorinated biphenyls (PCBs) to ensure that PCB regulations are being complied with. We have addressed this issue through two reviews. The first review resulted in a report dealing with the abandonment of PCBs by SED, Inc., a PCB company (GAO/RCED-87-127, May 20, 1987). This second report reviews the oversight of PCB storage and disposal companies by EPA's regional office in Kansas City (region VII) and identifies improvements needed in EPA's nationwide PCB enforcement program.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies to the Administrator, EPA, and to other interested parties and make copies available to others upon request.

This report was prepared under the direction of Hugh J. Wessinger, Senior Associate Director. Other major contributors are listed in appendix II.

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Sincerely yours,

J. Dexter Peach

Assistant Comptroller General

Executive Summary

Purpose

Polychlorinated biphenyls (PCBs) are toxic environmental contaminants linked to a number of health problems, including reproductive, gastric, and nervous system disorders as well as cancers and tumors. The 1976 Toxic Substances Control Act banned the manufacture of PCBs and directed the Environmental Protection Agency (EPA) to regulate PCBs still in use in electrical equipment, their eventual phase-out, and subsequent disposal to protect human health and the environment. An estimated 750 million pounds of PCBs are still being used or stored and will require both proper and timely disposal.

Concerned about the abandonment or improper handling of millions of pounds of PCBs and PCB-contaminated materials by several companies in the Kansas City area, the Chairman, Subcommittee on Environment, Energy, and Natural Resources, House Committee on Government Operations, requested that GAO determine how EPA's Kansas City regional office (region VII) was overseeing the operation of PCB storage and disposal companies and identify improvements needed in EPA's nationwide PCB enforcement program.

Background

Through enactment of the Toxic Substances Control Act, the Congress directed EPA to issue regulations prohibiting the manufacture of PCBs and prohibiting the processing, distribution, and use of all PCBs in other than a totally enclosed manner. These regulations also required EPA to prescribe acceptable methods for disposal. One of the most crucial regulations is the 1-year storage requirement, which generally requires that PCBs be destroyed or disposed of within 1 year of their being removed from use and placed in storage. This regulation is intended to ensure that PCBs are ultimately disposed of within a reasonable period of time.

All PCBs for disposal generally flow through PCB companies. Currently, about 30 disposal companies have EPA-approved permits and, according to EPA estimates, over 100 other companies provide some type of intermediate service involving the handling and storage of PCBs before disposal. Some deadlines for removal from service and disposal of certain electrical equipment are approaching over the next several years and, consequently, large quantities of PCBs are expected to be handled by these PCB companies.

GAO has previously reported that EPA has been slow in controlling PCBs. For example, a 1981 report concluded that EPA had made only limited progress in regulating PCBs and identified limited headquarters oversight and guidance to EPA regions as specific problems (CED-82-21, Dec. 30,

1981). Gao reported in May 1987 that EPA does not have nationwide criteria for issuing permits to PCB disposal companies and does not require permits for intermediate companies that collect, store, and prepare PCBs for delivery to an EPA-permitted disposer (GAO/RCED-87-127, May 20, 1987). GAO'S 1987 report recommended that the intermediate companies be required to obtain EPA permits to handle PCBs. Legislation has been introduced to this effect because of congressional dissatisfaction with EPA's pace in addressing PCB problems.

Results in Brief

Incidents involving the handling of PCBs in region VII over the last few years substantiate past GAO conclusions about EPA's inadequate controls over PCBs and specifically illustrate what can happen when enforcement efforts are limited. For example, one PCB company in region VII went out of business leaving an estimated 13.5 million pounds of PCBs and PCB-contaminated materials. Other companies have been shut down because of regulatory violations.

Although EPA regions are primarily responsible for enforcing PCB regulations, EPA headquarters has not, in the past, provided the necessary nationwide guidance and direction covering the nature, scope, and extent of its inspection efforts for the regions to follow. GAO believes that effective enforcement dictates regular verification that PCB companies are operating safely and effectively. In cases where PCB companies ran into serious problems in the region, the problems were not uncovered until comprehensive inspections were made even though the problems were building over a period of several years. Seven companies operated for at least 3 years in the region with no inspection and two of these operated for 5 years without being inspected. In addition, some facilities housing PCB operations have been vacated, and EPA did not inspect the sites to verify that they were free of PCBs.

Further, EPA did not enforce prompt correction of violations noted during region VII inspections. Region VII took twice as long in 1985 and 1986 to officially notify companies of PCB violations as it did in 1980.

Principal Findings

Frequency and Scope of Inspections

EPA headquarters has not, in the past, directed its regional offices to assign special priority to the inspection of the estimated 130 or more companies that handle PCBs. Prior to 1987 many inspections of PCB companies in region VII were made only in response to complaints. Such inspections were generally directed at investigating the specifics of the complaint and were not comprehensive inspections for compliance with PCB regulation and permit conditions. GAO's review of PCB companies in region VII showed that even when inspections were frequent, the serious problems with these companies were not uncovered for several years until comprehensive inspections were made. GAO believes that such comprehensive inspections should be done annually, which would also help to identify the violations of the requirement that PCBs generally be disposed of within 1 year of their being removed from use and placed in storage.

Region VII also did not inspect all vacated or nonoperating PCB sites for contamination. For example, of 11 sites vacated in the region, 5 were not inspected by EPA. EPA officials said that they have contacted the companies involved and were provided information that they believe indicates that the sites were properly cleaned, although they have not inspected all the sites to verify this information.

EPA headquarters has acknowledged the need for improvements in its PCB compliance monitoring program and specifically cites the need for additional inspection guidance covering at least annual comprehensive inspections of these PCB companies. Such measures should strengthen inspections and subsequent enforcement actions.

Corrective Actions

Region VII's average time to process official enforcement actions against violators during 1985 and 1986 (9-1/2 months) delayed corrective action. Although EPA inspectors discuss suspected violations with the companies at the time of the inspection, the violations are considered tentative and are not official until regional review is complete. Some companies react promptly to these discussions, but others do not. In addition, EPA later drops some of the suspected violations while adding others when EPA sends its official enforcement action. EPA has acknowledged the need for guidance and procedures to ensure prompt compliance with PCB regulations and permit requirements.

Recommendations

Although GAO looked only at EPA region VII in this review, its findings here and previous work in other regions indicate that improvements are needed in EPA's national PCB enforcement program, particularly in light of the absence of national guidance by EPA headquarters. To improve EPA's enforcement and compliance over the safe handling and disposal of PCBs and to reduce the likelihood of future incidences of improper disposal and abandonment, GAO recommends that the Administrator, EPA, establish nationwide inspection guidance for PCB companies. Such guidance should include requirements for

- annual comprehensive inspections of every PCB disposal and intermediate company for compliance with all PCB regulations and permit conditions,
- · inspection of facilities once PCB operations cease, and
- procedures that ensure correction of PCB regulatory deficiencies as soon after inspection as possible.

Agency Comments

The views of responsible officials were obtained during GAO's review and incorporated into this report where appropriate. EPA officials commented that they generally agreed with the report's findings and the need for annual comprehensive inspections of PCB companies. As requested, however, GAO did not obtain official agency comments on a draft of this report. Since the completion of GAO's audit work, EPA has proposed actions which, if fully implemented, should be responsive to GAO's recommendation.

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Abbreviations

EIES	Environmental International Electrical Services, Inc.
EPA	Environmental Protection Agency
ERM	Environmental Resources Management, Inc.
GAO	General Accounting Office
PCBs	polychlorinated biphenyls
SED	SED, Inc.
ΓSCA	Toxic Substances Control Act

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Introduction

Polychlorinated biphenyls (PCBs) are a large family of synthetic, toxic chemical compounds that can cause serious health and environmental problems. For almost 50 years they were used primarily as an insulating fluid in electrical capacitors and transformers. These chemicals are known to cause cancer in laboratory animals and serious adverse effects in humans, mammals, birds, and fish. Under the 1976 Toxic Substances Control Act (TSCA), the Congress banned the further manufacture and distribution of PCBs and directed the Environmental Protection Agency (EPA) to issue regulations controlling existing uses and eventual disposal of the chemicals.

PCB Regulation Under TSCA

EPA regulations governing PCBs are designed to control all aspects of the chemicals' manufacture, use, and disposal. First, to avoid substantially increasing the amount of PCBs already in the environment, the regulations prohibit additional manufacture of PCBs. The regulations also restrict the use of all PCBs in other than a totally enclosed manner. Additionally, the regulations require that (1) industry mark most items containing PCBs with appropriate warning labels; (2) records be maintained by facilities using or storing PCBs; and (3) PCBs be destroyed or disposed of, where appropriate, within 1 year of their being removed from use and placed in storage. For those handlers of PCBs removed from service, this last requirement is one of the most crucial. The 1-year storage requirement is intended to ensure that PCBs are ultimately disposed of within a reasonable period of time.

EPA regulations prescribe acceptable methods for disposal to ensure that those PCBs taken out of commerce do not further contaminate the environment. These regulations affect an estimated 750 million pounds of PCBs now contained in an estimated 110,000 transformers and about 3 million capacitors that will eventually require disposal. Basically, the regulations require that high-concentration PCBs taken out of service be disposed of either by EPA-approved, high-temperature incinerators needed to break high concentrations of PCBs down to harmless components, or by alternate, EPA-approved destruction methods. Other materials, such as drained transformer carcasses, low concentration solids, and materials contaminated by spills, can be placed in approved chemical landfills; oils contaminated with low concentrations of PCBs can be disposed of by high-efficiency boilers.

Some deadlines for removal from service and disposal of certain electrical equipment are approaching soon and, as a consequence, the amounts

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of PCBs and PCB-contaminated materials requiring safe and proper disposal will peak over the next several years. Proper disposal is, therefore, the ultimate aim of EPA's PCB control efforts. Without proper disposal, the large quantities of PCBs that will be removed from service could be released into the environment with potentially harmful consequences.

Although EPA headquarters is responsible for the PCB program, the enforcement of PCB regulations governing use and disposal lies primarily with each of the 10 EPA regions. This enforcement includes granting PCB disposal permits, conducting inspections, and carrying out enforcement actions against violators.

Congressional Interest

Concerns over PCBs have been the subject of two congressional hearings on the abandonment of millions of pounds of PCBs in EPA region VII (Kansas City area) and the basis of three previous reports that we issued on PCBs. August 1986 and April 1987 congressional hearings before the Subcommittee on Environment, Energy, and Natural Resources, House Committee on Government Operations, examined the activities of several PCB disposal companies located in the Kansas City area and EPA's efforts to make sure that such companies are operating in compliance with PCB regulations. At hearings held in August 1986, the Subcommittee examined EPA's PCB enforcement effort relating to Martha C. Rose Chemicals, Inc. (Rose Chemicals) of Holden, Missouri, where. according to EPA estimates, about 13.5 million pounds of PCBs and PCBcontaminated materials were abandoned. The company declared bankruptcy despite having received millions of dollars in disposal payments. The April 1987 hearings examined how several other PCB disposal companies operated in the Kansas City area for years despite repeated regulatory violations.

Prior GAO Reports

In October 1980 we reported that EPA missed all but one of its legislative deadlines for issuing PCB regulations. We also noted that most EPA regulations for implementing the statutory ban on PCBs were issued late, some by as many as 18 months.

¹EPA Is Slow to Carry Out Its Responsibility to Control Harmful Chemicals (CED-81-1, Oct. 28, 1980).

In December 1981 we reported that limited EPA headquarters guidance and oversight hindered the development of an effective inspection program.² We also concluded that EPA's enforcement actions in response to violations were generally slow, thereby delaying corrective action. We noted that EPA regional offices, which are responsible for conducting inspections, lacked sufficient headquarters guidance on how to inspect PCB facilities or which facilities should be inspected. We concluded that there was little assurance that EPA was inspecting those facilities whose use of PCBs posed the greatest potential threat of environmental contamination.

In May 1987 we reported that EPA's actions substantiated the conclusions raised in our December 1981 report about inadequate controls over PCBs and specifically illustrated limited EPA headquarters oversight and guidance to its regions.³ In that report we examined the circumstances that led to the abandonment of approximately 7 million pounds of PCBs at sites located in North Carolina and Ohio operated by SED, Inc. (SED), a PCB handling and disposal company. Our review of SED again raised questions about EPA's overall PCB regulatory program, and we concluded that EPA had still not established the controls necessary to ensure the safe handling and proper disposal of PCBs. We recommended three specific actions aimed at improving EPA's control over the safe handling and disposal of PCBs:

- Establishing nationwide criteria for PCB permits.
- Extending EPA permit requirements to include all intermediate operators (those "middlemen" companies that, for a fee, collect and store PCBs until they are delivered to a disposer holding a permit).
- Emphasizing periodic inspections of all PCB handlers, especially focusing on the correction of PCB regulatory deficiencies as soon after inspection as possible.

This report builds upon our third recommended action from our May 1987 report—emphasizing periodic inspections of all PCB handlers. Our review of enforcement actions in EPA's region VII (covering the states of Iowa, Kansas, Missouri, and Nebraska) raises issues we have commented on in our December 1981 and May 1987 reports about the effectiveness of EPA's efforts to monitor compliance with PCB regulations.

²EPA Slow In Controlling PCBs (CED-82-21, Dec. 30, 1981).

³Toxic Substances: Abandonment of PCBs Demonstrates Need for Program Improvements (GAO/RCED-87-127, May 20, 1987).

Legislative Action

Our May 1987 report was the basis for legislation introduced on July 30, 1987, and referred to the House Committee on Energy and Commerce. This bill, H.R. 3070, seeks to improve and strengthen the regulatory requirements for PCB disposal activities by (1) requiring EPA permits for PCB intermediates and (2) requiring that all PCB handlers comply with specific manifest (tracking) and financial responsibility requirements. In December 1987 we testified before the Subcommittee on Transportation, Tourism, and Hazardous Materials, House Committee on Energy and Commerce, in support of this legislation. We believe that H.R. 3070 will improve and strengthen the regulatory requirements for PCB disposal activities. Introduced because of congressional dissatisfaction with EPA's pace in addressing PCB problems, this legislation should provide the vehicle for getting improvements made expeditiously.

PCB Companies

During the early 1980s companies emerged to fill the need for disposing of PCBs taken out of service from the estimated 700,000 to 750,000 facilities that are subject to PCB regulation. All PCBs taken out of service from original owners/generators generally flow through or are disposed of primarily by two types of PCB companies: PCB disposal companies and PCB intermediate operators. PCB disposal companies must use approved methods and obtain an EPA permit. As of October 1987, 30 companies had EPA-approved permits, according to EPA officials, for disposal methods. PCB intermediate operators, the "middlemen" companies acquiring PCBs from owners/generators before disposal, currently do not need an EPA permit.

EPA does not know how many of these intermediate companies are currently in operation primarily because these companies are not required to hold a permit or otherwise notify EPA of their actions. However, EPA officials estimate that over 100 companies provide some type of intermediate service involving the handling and storage of PCB wastes.

Objectives, Scope, and Methodology

In an August 29, 1986, letter and subsequent meetings, the Chairman, Subcommittee on Environment, Energy, and Natural Resources, House Committee on Government Operations, asked us to determine how EPA was overseeing the operation of PCB companies to ensure that PCB regulations are being complied with. We have addressed this issue through two reviews. The first review examined EPA's oversight of SED, which abandoned approximately 7 million pounds of PCB waste (GAO/RCED-87-127, May 20, 1987). The second review involved the oversight of PCB companies by EPA's regional office in Kansas City (region VII) from

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fiscal year 1979, the year EPA's final PCB regulations were issued, through fiscal year 1987. This report covers the results of the second review.

The objectives of this second effort were to determine how EPA's region VII was overseeing the operation of PCB companies and to identify improvements needed in EPA's nationwide PCB enforcement program. This report identifies the characteristics of an effective national oversight program—one that is capable of identifying and correcting significant noncompliance by PCB companies before they reach the point of large-scale abandonment, which occurred in the case of SED and Rose Chemicals. (See ch. 2.) We were also asked to update information on three PCB companies that were discussed during the April 1987 congressional hearing: PCB Treatment, Inc., Environmental Resources Management, Inc., and Environmental International Electrical Services, Inc. (See app. I.)

We performed our work at EPA's Washington, D.C., headquarters and the region VII office in Kansas City, Kansas. We reviewed EPA policies, procedures, and records relating to PCB permits, inspections, and enforcement actions. We relied primarily on EPA documents and interviews with regional officials.

To determine the extent of enforcement control over PCB operating permits, we reviewed permit application records for the 26 companies that had applied for region VII disposal permits as of September 30, 1987. For the eight active companies holding permits as of September 30, 1987, we reviewed the various conditions attached to each permit and evaluated the changes made over time for these eight companies in both the type and number of conditions.

To evaluate the effectiveness of the region's PCB enforcement inspections, we obtained general statistics on the region's overall enforcement effort since 1979 covering PCB users as well as PCB disposal companies and PCB intermediates. We also reviewed EPA and the region VII enforcement strategy, and the region's annual work plans. We obtained and analyzed inspection reports and other related documents for PCB companies actively engaged in the PCB disposal business as of November 1986 as well as PCB companies that had gone out of business.

To evaluate the region's administrative enforcement actions, we obtained and reviewed copies of complaints it filed against PCB companies. We analyzed the amount of time the region took to process these

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and other enforcement actions, and reviewed agreements reached in the settlement between the region and the violators.

Our work was performed between October 1986 and October 1987 in accordance with generally accepted government auditing standards. The views of responsible officials were obtained during the course of our work and are incorporated where appropriate. EPA officials commented that they generally agreed with the report's findings and the need for annual comprehensive inspections of PCB companies. As requested, however, we did not obtain official agency comments on a draft of this report. Since the completion of our audit work, EPA has proposed actions which, if fully implemented, should be responsive to our recommendation. (Ch. 2 contains a discussion of current EPA actions.)

An effective PCB program should emphasize careful oversight of PCB companies since all PCBs generally flow through these companies in the disposal process. Region VII's oversight of PCB companies was limited until it discovered major problems in several PCB companies. Although improvements have been made, more are needed. For example, in the past, some PCB companies operated for years in region VII without inspection (although this is no longer the case). Also, some facilities containing PCBs have been vacated, and no inspection was required or conducted. In addition, enforcement actions against PCB companies in region VII have been limited. The region has not taken prompt action on violations. It took twice as long to officially notify companies of PCB violations during fiscal years 1985 and 1986 as it did in 1980 when we were also critical of this time lapse.¹ Corrective actions by companies should occur as soon after inspections as possible.

Contributing to the situation in region VII is the fact that EPA headquarters has not provided the necessary nationwide guidance and direction to properly monitor PCB companies. Effective enforcement dictates regular verification that PCB companies are operating safely and effectively. Annual comprehensive inspections would enable EPA to monitor the accumulation of PCBs and enable EPA to detect problems more quickly. EPA has not given any special inspection priority to PCB companies (over other industries that use PCBs) even though all PCBs for disposal generally flow through these companies. In addition, EPA does not require its 10 regions to conduct annual comprehensive inspections of these companies covering all applicable PCB regulations and permit conditions. EPA needs to give more attention to these PCB companies nationwide in order to preclude the abandonment of hazardous PCBs and to protect human health and environment.

Oversight of PCB Companies

EPA headquarters began to enforce its PCB regulations by developing a series of documents called PCB inspection strategies designed to provide guidance to its regions. This guidance was provided to the regions, but the regions had the discretion to decide how they would carry out their inspection activities. According to these documents, EPA inspection efforts were to be devoted to inspecting facilities in selected industries that use PCBs. Each of EPA's 10 regions was responsible for selecting the companies to inspect using regional priorities and headquarters guidance. However, these EPA strategies directed no special emphasis to PCB companies through which all PCBs to be disposed of will generally flow.

¹EPA Slow In Controlling PCBs (CED-82-21, Dec. 30, 1981).

Until recent concerns about PCB companies were raised, EPA headquarters did not feel that it was necessary to prioritize inspection strategy.

EPA headquarters issued its first enforcement strategy in May 1981, about 3 years after PCB marking and disposal regulations were in effect. This strategy identified and allocated inspections on a percentage basis among 11 industries, such as electrical utility and chemical companies, which were believed to control the vast majority of PCBs. In our 1981 report, we noted that this inspection strategy did not include some likely PCB facilities, such as transformer repair shops, waste oil dealers, and disposal sites. We concluded that questions remained concerning whether EPA was inspecting those facilities whose use or handling of PCBs posed the greatest potential threat of environmental contamination.

In May 1985 EPA revised its strategy to include a listing of 10 industry groups selected on the basis of a survey done for EPA using 1981 inspections and associated violations data. This listing did not allocate inspection resources for each industry category, but rather indicated industry groups on the basis of those most likely to have significant violations. These industry groups or sectors were metals, electrical utilities, chemicals, government facilities, food and feed, electrical equipment manufacture and repair, scrap and salvage, disposal, general manufacturing, and other. Each region was to develop its own inspection scheme to target inspections on the basis of information obtained from regional inspections, regional PCB industry make-up, previous violations and any other information on PCB users. While some effort was to be devoted to inspections in response to complaints, crises, or special situations, major efforts were to be devoted to inspections of facilities in these target groups. In June 1986 EPA headquarters amended this guidance to include an additional industry sector, commercial buildings, because of the greater number of people potentially at risk and the concern over firerelated incidents.

Although PCB disposal companies are listed as one of the industry groups that should be given attention in regional office inspection programs, none of these strategy and guidance documents singled out or assigned any special priority to PCB companies. These guidance documents do not call for any special emphasis to be given to inspecting PCB companies because headquarters gave no special priority instructions. Hence, region VII did not assign regional priority in its own enforcement plan to these inspections until its fiscal year 1987 inspection effort after having experienced major difficulties with PCB companies.

Region VII Enforcement Activities

Between 1979 and 1983, EPA's inspection of PCB companies in the region was minimal. Once problems with the operations of several companies surfaced during 1984 through 1986, region VII increased considerably its oversight of PCB companies.

Early Enforcement Action Was Minimal

When EPA's final ruling on PCB regulations went into effect in 1979, only one PCB company was operating in region VII. This company was a transformer repair facility, which began operating in 1971. The region made its first inspection of this company in July 1980 in response to a complaint about its operations. The inspection was also the region's first to cover a PCB company.

In 1981 four more companies began operating as PCB disposal companies. Through 1984, the number of PCB companies operating in the region increased to 19, but not all were inspected by the region. By the end of fiscal year 1984, the region had made a total of 20 inspections covering 11 of the 19 PCB companies. Eight of the 19 were not inspected because PCB companies received no special consideration among the other industries EPA had targeted for inspection. Seven companies operated for at least 3 years with no inspection and 2 of these operated for 5 years without being inspected. Another 2 companies went at least 3 years between inspections. Region VII generally inspected PCB companies during these early years only if a complaint was received or if a company applied for a PCB disposal permit.

As shown in table 2.1, the situation has improved with the number of uninspected companies decreasing from a high of 15 in 1983 to none in 1987.

Table 2.1 Region VII PCB Companies and Inspections

Fiscal year	PCB companies	Inspections of PCB companies ^a	PCB companies inspected ^a	PCB companies not inspected
1979	1	0	0	1
1980	1	1	1	0
1981	5	1	1	4
1982	11	3	3	8
1983	18	4	3	15
1984	19	11	8	11
1985	23	22	11	12
1986	24	50	16	8
1987	20	95	20	0

Note: About 44 percent of the PCB inspections during this period were done in response to complaints. In addition, region VII inspections varied considerably in scope, ranging from interviews to actual physical inspections.

^aTotals in these two columns may not agree because a company may be inspected more than once during the year.

PCB Handling by Rose Chemicals and Other Companies in Region VII Raised Concerns

In August 1984 EPA conducted an extensive inspection of Rose Chemicals' PCB disposal operations at the request of the state of Missouri, which had received numerous complaints about the company's operations. This inspection revealed numerous violations, and a civil administrative complaint was issued in February 1985 proposing penalties of \$176,250. This was the first significant penalty proposed against a PCB company in the region. In September 1985 Rose Chemicals agreed to take corrective actions and pay a reduced penalty of \$46,000. During the next 8 months, EPA made nine inspections of Rose Chemicals' operations and discovered that some previously reported deficiencies were still not corrected, and they, along with newly discovered deficiencies, threatened public health and the environment. Even when these serious violations were noted, this company continued to hold large amounts of PCBs past the 1-year storage requirement. Following these nine inspections, the company went out of business, abandoning its facilities in July 1986 and leaving about 13.5 million pounds of PCBs. The problems of Rose Chemicals gained national attention when they were discussed in a congressional hearing held in August 1986 before the Subcommittee on Environment, Energy, and Natural Resources, House Committee on Government Operations.

From fiscal years 1984 through 1986, EPA received complaints about the operations of three other PCB companies, which led to increased inspection activity. Inspections of these three companies identified numerous serious deficiencies related to their operation. These companies' problems and EPA's oversight of their operations were the subject of an April 1987 hearing before the House Subcommittee on Environment, Energy, and Natural Resources. We testified at that hearing on our knowledge of EPA's enforcement activities at two of the three companies. (App. I contains a more complete description of these activities.)

Also during fiscal years 1984 through 1986, region VII conducted 83 inspections of PCB companies as compared with 9 inspections in the 5 previous years. Of these 83 inspections, 46 (or 55 percent) were related to the 4 companies previously mentioned as the subject of numerous complaints. Another 3 companies accounted for 17 of the remaining 37 inspections. The other 20 inspections were made at 12 PCB companies. Even with this increased inspection activity, 7 PCB companies operating during this period were not inspected. Headquarters guidance did not require any special priority for PCB companies, and it was not the region's practice to inspect each PCB company.

Recent Changes in Region VII

After the problems region VII found during its inspections and which were discussed during the August 1986 congressional hearing, region VII revised its enforcement strategy and approach in dealing with PCB companies. The changes the region introduced in its fiscal year 1987 plan included increasing the number of inspections of PCB companies and listing each PCB company to be inspected annually. Since the beginning of fiscal year 1987, region VII has made the inspection of PCB companies a regional priority. In doing so, it has increased the number of PCB inspections from 50 in fiscal year 1986 to 95 in fiscal year 1987 and reduced the number of PCB companies not inspected from 8 in fiscal year 1986 to 0 in fiscal year 1987.

Closer Monitoring of PCB Companies Is Needed

The problems region VII has encountered in its oversight of PCB companies are indicative of those that other EPA regions have found or might be expected to find in the PCB companies in their region. This situation demonstrates the need to pay special attention to these companies in order to identify and correct problems before they escalate and to prevent any potentially serious environmental effects. Because the ultimate objective of PCB regulation is to provide for the safe disposal of all PCBs, and because the disposal of all PCBs taken out of service will generally be

handled by PCB companies, we believe continual oversight of their operation is critical if EPA is to have reasonable assurance that PCBs are being properly disposed of.

Because of the large volume of PCBs handled by these companies, major operational shortcomings have the potential to create serious environmental problems. For example, PCBs from Rose Chemicals contaminated nearby streams and the city's sewer plant, according to the Mayor of Holden, Missouri, during the August 1986 congressional testimony. When Rose Chemicals ceased operations in March 1986, about 13.5 million pounds of PCBs and PCB-contaminated materials remained on-site, and subsequent inspections by EPA between March and July 1986 found serious problems with the way the company was storing and handling these PCBs. Proper disposal of these PCB wastes, subsequently abandoned by Rose Chemicals, is estimated to cost at least \$20 million.

Another case involved PCB Treatment, Inc., and Environmental Resources Management, Inc. These two companies, which were owned by the same person, operated PCB disposal facilities in region VII until their continued failure to meet PCB regulations and EPA permit conditions resulted in EPA not renewing the companies' PCB disposal permits. The companies estimated in April 1987 that the cost to dispose of the remaining PCB inventory and clean PCB contamination from two buildings was \$359,000.

All PCBs for disposal generally flow through PCB companies and, therefore, over the next several years these companies will be handling the large volume of PCBs taken out of service. It is important that EPA closely monitor the operations of these PCB companies through annual comprehensive inspections, especially focusing on the correction of PCB regulatory deficiencies as soon after inspection as possible.

Annual Comprehensive Inspections

Throughout the years, many inspections of PCB companies in region VII have been made in response to complaints from the public, federal and state agencies, and industry employees. About 44 percent of the region's inspections were made pursuant to complaints. Such inspections were generally directed at investigating the specifics of the complaint as opposed to a comprehensive inspection of the company's operation for compliance with PCB regulation and permit conditions.

For example, EPA made its first four inspections of the operations of PCB Treatment, Inc. (PCB, Inc.), which obtained its first EPA-approved PCB

disposal permit in November 1982, between July 1982 and December 1984. All four were made because of complaints. The next two inspections were made in 1985 and were essentially follow-ups to a December 1984 complaint.

In August 1985, about 8 months after a complainant made major allegations about the company's operations, an inspector visited a scrap metal company and took samples of metal sold by PCB, Inc., to determine whether it was free of PCBs: it was not. The next month EPA started an extensive inspection of the company's operation and storage facility. It was conducted by three inspectors over a period of several days and was the first to examine the company's records in detail.

Thus, it was not until September 1985 that region VII conducted its first comprehensive inspection of PCB, Inc.'s operations and was, thus, able to determine the extent of the problems with the operation. A region VII official told us that the region is now committed to comprehensive inspections even though EPA headquarters does not require that such inspections be conducted annually. An annual comprehensive inspection would have enabled EPA to detect violations earlier, especially violations of the 1-year storage requirement.

Emphasis on Correcting Deficiencies

Our 1981 report stated that region VII's average time of about 5 months to process enforcement actions was slow and tended to delay corrective action. Violations should be corrected as soon as possible to reduce the possibility of contaminating the environment and endangering public health. Early official notification to the violator is essential to achieving prompt corrective action. Yet, our current work has shown that the situation deteriorated in the ensuing years, with improvements taking place only in fiscal year 1987.

Our analysis of region VII's 1985 and 1986 enforcement actions showed that it took an average of 9-1/2 months to officially notify PCB companies and users of serious violations resulting from inspections. Thus, it took twice as long to officially notify companies of PCB violations during fiscal years 1985 and 1986 as it did in 1980. The time from inspection to official notification ranged from 18 days to about 21 months. Enforcement actions against PCB companies were processed more promptly than those against PCB users, such as utility companies (an average of about 7-1/2 months versus 11 months, respectively).

When EPA region VII inspections have identified serious noncompliance by various PCB companies, region VII's practice has been to issue civil administrative complaints assessing monetary penalties on the company. The civil administrative complaint generally is followed by discussions between region VII and the company to reach agreement on corrective action and penalties. Civil administrative complaints we reviewed were resolved through consent agreements between the companies and region VII. (Failure to reach agreement could result in a judicial review for a final ruling.)

In some region VII cases, many months elapsed between the issuance of the complaint and final resolution of the case. The elapsed time to resolve civil administrative complaints filed against PCB companies that we reviewed ranged from about 2 months to 18 months. Six of the 14 cases took more than 6 months to settle. For example, the regional administrator signed a complaint against Environmental International Electrical Services, Inc. (EIES), on May 29, 1985, but settlement was not reached until 18 months later. In another case a complaint against PCB, Inc., was signed by the regional administrator on August 12, 1986, and was not settled until about 8 months later. These time periods are in addition to the time that elapsed between the completion of the inspection and the issuance of the complaint.

Through fiscal year 1987, the region's inspectors discussed suspected deficiencies with the companies at the time the inspections were made. but only as tentative deficiencies. In addition, we found that some companies were later cited for violations not discussed at the time of inspection and some violations discussed were later dropped. We found that some PCB companies in region VII reacted promptly to the discussions with inspectors, but others did not. The first official notification after inspection that region VII provided to a PCB company advising it of noncompliance and directing it to take corrective action was generally either a notice of noncompliance or a civil administrative complaint. The notice of noncompliance was used for less serious offenses for which the region did not intend to assess monetary penalties. Region VII issued notices of noncompliance during fiscal years 1985 and 1986 in an average of 6-1/2 months (ranging from 2 to 13 months) after the inspection. Civil administrative complaints, which are used for serious noncompliance in which monetary penalties are being assessed, were issued during fiscal years 1985 and 1986 about 9-1/2 months after the inspection. In fiscal year 1987 region VII made an effort to reduce the time it takes to issue civil

administrative complaints by reassigning some of its collateral responsibilities to other units. Early indications suggest that this effort has reduced the region's PCB case backlog and reduced processing time.

For fiscal year 1988, region VII has changed its notification procedures by allowing its inspectors to issue a notice of noncompliance at the time of inspection for minor violations in which no penalty is involved, thereby eliminating the case development work previously required of the regional office. This change should reduce the work load of the region's case development officers, thereby expediting issuance of civil administrative complaints. The notices of noncompliance issued by the inspectors require that the company notify EPA as to what corrective action it has taken. Issuing a written statement of deficiencies at the time of the inspection should lead to more prompt corrective action by the PCB companies.

We believe that preliminary notification should be used by all EPA regions for all violations in order to prompt the PCB companies into corrective action, including those more serious violations for which penalties are warranted. The notification should have a deadline for responding to the cited violation. In addition to accelerating the pace of corrective action, this approach should also help reduce the work load in processing civil administrative complaints because case development can be limited to the more serious deficiencies. EPA headquarters agrees with the need for quicker processing of cases and is currently developing guidance for its regions.

Inspection of Vacated Sites

EPA needs to inspect a facility soon after a PCB company ceases operations. EPA could require a company, as part of its permit conditions, to notify EPA when operations cease. Since 1985, all region VII permit approvals have included this requirement. Region VII has required facility owners or operators to notify the regional administrator at least 180 days prior to the anticipated closure date. An inspection is needed to ensure that the facility has been cleaned up and PCB waste has not been left behind, which would decrease the likelihood of PCBs entering the environment. Region VII has not always inspected PCB sites for contamination after the sites were vacated. Nine of 31 PCB companies that have operated in region VII had vacated facilities at 11 different sites through December 1986. EPA did not inspect 5 of the 11 sites after they were vacated. We discussed the status of these uninspected sites with EPA officials who told us that they have contacted the companies involved and were provided information that they believe indicates that the sites

were properly cleaned, although they have not inspected all the sites to verify this information.

Permits for All PCB Handlers

EPA regulations require that anyone disposing of PCBs must obtain an EPA-approved permit, and the granting of a permit is the beginning of and key to EPA's enforcement over PCB disposal companies. Although permits are not required for all PCB operations and no nationwide criteria exist for permit conditions, region VII has made advances in expanding and strengthening the conditions for its most recently issued permits. We made recommendations in our May 1987 PCB report to deal with this situation. This section describes region VII's activities in this area and cites several instances in which current permits need revision.

As of September 30, 1987, 26 different companies had applied for region VII PCB disposal permits: 14 were eventually approved for full operation; 6 received 6-month interim permits and then either went out of business, were referred to EPA headquarters for a national permit, or still have applications pending; 3 received research and development permits and then went out of business; and 3 chose to proceed no further than submitting the application. A total of eight companies with permits were active in region VII as of September 30, 1987.

We found that region VII has always attached conditions to its permit approvals and has also required each company to demonstrate that its process would safely and effectively destroy PCBs. However, in comparison with permits issued since 1985, the region's earlier permits contained only a few generally worded conditions. For example, an October 1986 review of region VII's permits by an EPA headquarters team revealed that the pre-1986 permits contained numerous deficiencies. Specifically, the permit conditions, among other things, did not address disposal of process wastes that could contain PCBs, nor did they contain provisions requiring proof of the company's financial responsibility or liability insurance coverage.

In addition, two large established companies with high-efficiency boilers were granted permits in 1981 to dispose of low-concentration PCB fluids, but both permits are still in effect and have no expiration dates. The region plans to change these two permits but has not yet decided whether to restrict the permit term by setting an expiration date or setting a maximum amount of PCBs that can be burned. All other permits have a 3-year or 10-year authorization period and are subject to a renewal review at that time. One of these firms has had some PCBs in

storage for over 8 years, far in excess of the 1-year storage limit as required by PCB regulations (see ch. 1). We brought this to EPA's attention, and EPA officials stated in January 1988 that they plan to resolve the situation through regional follow-up to a recent inspection.

Some PCB companies make a business of collecting and storing PCBs until they can be delivered to a PCB disposer. These intermediate companies are not required to obtain an EPA-approved permit because they merely handle the PCBs and do not actually destroy them. For example, one company, employing about 60 people, buys used electrical transformers and then repairs or rebuilds them for resale, or tears them down for sale as scrap. In some cases, the used transformers contain PCB oil, which is drained out, stored, and then shipped to a PCB disposal company. Five such intermediate companies were known to be operating in region VII as of September 30, 1987.

In our May 1987 report, we discussed the permit issue, pointing out that EPA did not have nationwide criteria for PCB disposal permits, which allows inconsistencies among permit conditions. We also pointed out the need for intermediate companies to be required to obtain permits because they handle large volumes of PCBs and need to be inspected regularly to ensure they are in compliance. (As discussed in ch. 1, this second recommended action is a critical feature in H.R. 3070.)

Need for a Nationwide Policy

We have pointed out in two previous reports that EPA has been slow in controlling PCBs. In our 1981 report, we concluded that EPA made only limited progress in regulating PCBs and cited lack of direction from EPA headquarters in its enforcement program. We identified limited headquarters oversight and lack of sufficient guidance to EPA regions as specific problems. We reported in May 1987 that EPA does not have nationwide criteria for permits issued to PCB disposal companies, needs to extend permit requirements to include PCB intermediate companies, and needs to emphasize periodic inspections of all PCB handlers.

Because the oversight of PCB companies is shared by all EPA regional offices, it is important that all operate under nationwide policy and criteria. The establishment of a standard nationwide policy and criteria would ensure more consistent and effective oversight of PCB companies. EPA headquarters has acknowledged the need for improvements in its PCB compliance monitoring program and specifically cites the need for additional inspection guidance for its regions in order to strengthen its PCB inspections and subsequent enforcement actions. Region VII officials

responsible for PCB enforcement have also indicated general agreement with the need for the kind of oversight approach that we have discussed in this report and have recently undertaken a number of changes in their approach to overcome some of the problems we have discussed.

Conclusions

Because the ultimate objective of PCB regulations is the proper disposal of PCBs and PCB-contaminated materials, and their actual disposal will generally be accomplished through the PCB companies, it is important that EPA closely monitor the operations of the PCB companies. We have previously noted the problems that can occur and go undetected if these companies are not closely monitored. EPA policy and strategy documents have not, however, required its regional offices to closely monitor the operations of the PCB companies operating in their regions. The manner and extent to which regional offices monitor the operations of PCB companies is left to the discretion of each regional office. Our review of region VII's oversight of PCB companies shows that the manner and extent of its oversight has changed considerably in recent years, from a primarily reactive approach (i.e., responding to complaints) to an active approach calling for frequent inspections of the PCB companies. This change in approach was influenced by serious noncompliance problems occurring with several of the PCB companies operating in the region that were the subject of congressional hearings. We believe that region VII is correct in its recent efforts to more closely monitor the activities of PCB companies operating in its region and that similar efforts should be made by all EPA regions.

To enable EPA to better monitor the accumulation of PCBs and more quickly detect problems, we believe that EPA inspections of PCB companies ought to be done at least annually. An annual inspection would enable EPA to better identify violations of the 1-year storage requirement. We also believe that these inspections need to be comprehensive and thorough. Because of the critical role that these companies play in PCB disposal and the serious consequences that can result if they do not comply with PCB regulations and disposal permit conditions, we believe that regional offices should closely monitor the operation of the PCB companies in their respective regions. Such a monitoring program should, at a minimum, involve:

At least an annual comprehensive inspection of each PCB company.
 These inspections will help ensure that all permit conditions are being met; all PCB regulations concerning the marking, handling, storage,

processing, and disposal of PCBs and PCB waste are being complied with; and deficiencies found in prior inspections have been corrected.

- Prompt inspections of vacated sites to ensure that the site has been cleaned of all PCBs and PCB-contaminated materials.
- Emphasis on the prompt correction of deficiencies identified by inspections and subsequent enforcement actions.

EPA's region VII has not always incorporated these features in its oversight of PCB companies because EPA inspection strategy does not specifically address PCB companies and, therefore, oversight of such companies is left to the discretion of the regional offices. Recent changes in the region's approach to PCB companies, however, have shown that the region has recognized the need for incorporating many of these features in its oversight approach.

We believe this type of monitoring is necessary nationwide in order for EPA to identify and resolve noncompliance and operational problems that, if unchecked, could result in serious environmental damage. EPA headquarters must provide the proper guidance to its regions to avoid the experiences encountered by region VII and elsewhere. EPA acknowledges the need to make modifications to its existing program. We believe that EPA needs to take these actions as expeditiously as possible.

Recommendation to the Administrator, EPA

Although we looked only at EPA region VII in this review, our findings here and previous work in other regions indicate that improvements are needed in EPA's national PCB enforcement program, particularly in light of the absence of national guidance by EPA headquarters. To improve EPA's enforcement and compliance over the safe handling and disposal of PCBs and to reduce the likelihood of future incidences of improper disposal and abandonment, we recommend that the Administrator, EPA, establish nationwide inspection guidance for PCB companies. Such guidance should include requirements for

- annual comprehensive inspections of every PCB disposal and intermediate company for compliance with all PCB regulations and permit conditions,
- · inspection of facilities once PCB operations cease, and
- procedures that ensure correction of PCB regulatory deficiencies as soon after inspection as possible.

Views of Agency Officials

Responsible EPA officials with whom we spoke generally agreed with our report's findings and the need for annual comprehensive inspections of PCB companies. During recent discussions with these officials, they said that a number of new program initiatives are now underway that closely track our recommendation. Since the completion of our audit work, EPA headquarters has undertaken several modifications to both its PCB permitting and enforcement programs.

EPA undertook a review during late 1986, called a National Evaluation Program, to identify areas in which uniform policies should be used to improve its enforcement operations. During August 1987 EPA completed the final report on this evaluation. This report detailed specific efforts by headquarters and regional program offices to strengthen its PCB disposal program. The report outlined recommended EPA actions to (1) provide additional resources to its regional offices; (2) establish headquarters oversight over regional permitting and enforcement actions; (3) develop guidance on standard nationwide criteria for PCB permits; and (4) update its enforcement/compliance inspection manual, particularly sections of the manual describing procedures for inspecting alternative disposal facilities. Although no specific time frames were proposed for final implementation of these actions, EPA has undertaken a number of actions responding to the final report's recommendations, which are discussed as follows.

Additional Resources

In November 1987 EPA headquarters issued fiscal year 1988 supplemental guidance to each region, which called for transferring 5 positions from headquarters to regional staffing loads (one position going to 5 of EPA's 10 regions).

Increased Headquarters Oversight and Guidance

Since October 1987 EPA headquarters has provided the regional offices with a number of draft and final statements of policy. These basically cover new permitting and enforcement/inspection guidance.

EPA's new permitting guidance covers a range of new and updated guidance to its regions. Headquarters is preparing formal procedures for the permitting of alternate methods of disposal that will incorporate all previously issued guidance and policies, provide additional guidance, and establish in a handbook format the agency's process for the permitting of alternate methods of disposal. Headquarters expects that the handbook will be ready for distribution to the regional offices by June 1988. In addition, headquarters is in the final stages of completing a computer

system designed to compile all PCB disposal permits that should be accessible by all the regional offices by March 1988. EPA headquarters expects this system to result in improved consistency and quality of the PCB permitting process nationwide.

EPA headquarters has also issued draft and final statements of policy covering enforcement and inspection guidance. Its fiscal year 1988 supplemental guidance calls for comprehensive compliance inspections at each permitted disposal site and intermediate facility. In late January 1988 EPA headquarters issued a draft compliance monitoring strategy amendment for PCBs. This proposed amendment specifically addresses targeting inspections of intermediates as well as PCB permitted disposal sites. It calls for (1) periodic and thorough annual inspections of all permitted facilities, (2) 25 percent of the total PCB regional inspections for intermediate facilities, and (3) reinspections at facilities within 90 to 120 days where major violations are detected and/or where serious environmental or health risks are present. Headquarters also plans to issue formal guidance for inspecting alternate methods of disposal by May 1988.

In addition, EPA has recently undertaken rulemaking to require all handlers of PCBs to notify EPA and to also comply with manifesting (tracking) procedures for all PCBs handled. EPA plans to issue the proposed rule by April 30, 1988. After proposal, EPA intends to allow 30 days for comment and hold a public hearing, if requested. The final rule is scheduled to be issued by December 31, 1988.

We believe that EPA's recent initiatives in its PCB permitting and enforcement programs will improve its monitoring of PCB companies. We also believe that, if fully implemented, these improvements in EPA's nationwide PCB program should be responsive to our recommendation.

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The Subcommittee on Environment, Energy, and Natural Resources, House Committee on Government Operations, held hearings in April 1987 on PCB activities in EPA's region VII. We were asked to testify on three PCB companies operating in that region: PCB Treatment, Inc., Environmental Resources Management, Inc., and Environmental International Electrical Services, Inc. Since we had not completed our work at that time, we were able to testify only on the activities of the first two companies. This summary describes EPA's enforcement activities on all three firms through September 30, 1987.

PCB Treatment, Inc.

PCB Treatment, Inc. (which also has done business as PCB, Inc., and as PCB, Inc., of Missouri and is hereafter referred to as PCB, Inc.) started operations in February 1982. At first the company was engaged in the transportation and storage of PCBs and PCB materials, activities that do not require an EPA permit. Later it acquired two EPA region VII permits: one to use a chemical process to destroy PCBs in mineral oil dielectric fluids used in transformers, and a second to use a process to decontaminate PCB electrical capacitors for salvage. (Capacitors are devices used to maintain the power and voltage levels in electrical systems and to improve their efficiency.) The company also attempted to obtain a permit for a process to decontaminate PCB electrical transformers for salvage, but it could not successfully demonstrate to EPA that its process worked, and it never received approval.

In November 1982 PCB, Inc., received its first EPA permit to destroy PCBs in mineral oil dielectric fluids at its 2100 Wyandotte Street facility in Kansas City, Missouri. The approval was based on a successful demonstration that the company could achieve the required level of PCB destruction. After several interim approvals, EPA granted a 3-year approval in October 1983. This approval expired September 15, 1986.

About 1 year later, and at the company's request, the permit to destroy PCBs in mineral oils was transferred to Environmental Resources Management, Inc. (ERM), a company associated with PCB, Inc. (the same person was owner and president of both firms). The disposal location also was changed to 45 Ewing Street, Kansas City, Kansas, where both firms had facilities.

In February 1983 PCB, Inc., initially attempted to demonstrate its process for dismantling PCB capacitors and decontaminating the capacitor casings for salvage, but it was not successful. After the company changed its process, it held a successful demonstration in May 1983, and

EPA region VII granted a 6-month interim permit in July 1983. The interim permit was followed by a 3-year permit in January 1984, which expired February 1, 1987.

Between February 1982 and July 1985, EPA inspected PCB, Inc.'s, facilities on three separate occasions—July 2, 1982; April 22, 1983; and November 20, 1984—because of third-party complaints received concerning the manner in which the company handled PCBs. The first and third inspections found two storage violations, which resulted in proposed administrative penalties of \$18,000 and \$70,000, respectively. Each of these civil actions was resolved through consent agreements whereby the company agreed to take corrective action and pay a reduced fee. The reduced fines paid by PCB, Inc., were \$7,200 and \$28,000, respectively. EPA found no violations during the second inspection in April 1983.

In December 1983 PCB, Inc., asked EPA for a 60-day extension for destroying by incineration PCBs that, under EPA regulations, were required to be destroyed by January 1, 1984. EPA denied the extension and proposed a \$10,000 penalty for failure to destroy the PCBs on time. The penalty was subsequently reduced to \$1,000 and the company paid it after taking corrective actions.

Between August 1985 and March 1986, EPA performed six inspections of PCB, Inc., operations, which resulted in a civil administrative complaint issued August 12, 1986, with total proposed penalties of \$2,436,000. The violations for which these penalties were proposed included the following:

- metal, purportedly decontaminated by PCB, Inc., and sold as scrap, still contaminated with PCBs;
- improper storage (i.e., PCB items were not in approved storage containers or storage areas had defective or missing curbing);
- improper disposal (i.e., disposal process not operated as approved or spilled PCBs not cleaned up);
- improper marking of PCB containers (i.e., containers not marked as containing PCBs or containers not marked with dates of placement into storage for disposal); and
- inadequate record keeping (i.e., records do not show when all PCB items were received or destroyed).

Each of the six inspections discovered some new violations. In addition, later inspections found that some previously detected violations had not been corrected.

After EPA issued the August 1986 administrative complaint, it extended the company's deadline for filing an answer to the complaint on four different occasions. However, on January 20, 1987, region VII advised PCB, Inc., that it would not consider any further time extensions.

On April 1, 1987, EPA came to an agreement with PCB, Inc., and ERM. This consent agreement combined the settlements with the two companies for their violations of PCB regulations and EPA permit conditions. The two companies agreed to pay a combined \$100,000 penalty by June 30, 1987 (\$80,000 of which was received by September 30, 1987), and certified that they were closing their two sites, would properly dispose of all PCBs and PCB items by June 1, 1987, would properly clean both sites by August 1, 1987, and would set up a \$200,000 closure fund to ensure that the sites would be cleaned. (ERM is discussed further in the next section of this appendix.)

From April until the end of September 1987, EPA continued to combine its enforcement activities for the two companies, making 12 inspections. Five included visits to both the PCB, Inc., site and the ERM site. EPA visited the PCB, Inc., site 11 times and the ERM site 6 times. The EPA inspections noted that PCB, Inc., was still accepting additional PCB material in April, but all of the company's PCB material was disposed of by July. In addition, although some preliminary cleaning was done by the first part of August, the August 1, 1987, cleanup deadline set out in the consent agreement was not met because EPA found the PCB, Inc., site still to be contaminated with PCBs during an August 3, 1987, inspection. Analysis of four samples taken by the inspector showed that PCBs still were present on the loading dock and on storage area floors.

Even though the two companies missed deadlines set out in the consent agreement and EPA could now invoke an additional penalty of \$1.4 million, an EPA region VII official told us in October 1987 that the region was planning no further action at that time because

- both facilities are being cleaned and the region does not want to take any action that might stop the cleanup, which could happen if the \$1.4million penalty were imposed and
- all of the customer's PCB materials were removed from the sites.

Regional officials told us in January 1988 that they are continuing to monitor the cleanup operations. They stated that the region is leaving its enforcement options open pending the complete, proper closure by PCB, Inc., and its subsidiaries, PCB Treatment, Inc., and ERM.

Environmental Resource Management, Inc.

ERM started business in mid-1984. As noted earlier, the owner of PCB, Inc., requested in September 1984 that EPA transfer that company's permit to chemically destroy PCBs to ERM, which he also owned. He requested that the disposal site be changed from 2100 Wyandotte Street, Kansas City, Missouri, to 45 Ewing Street, Kansas City, Kansas. EPA approved the changes in October 1984. The permit expired on September 15, 1986. In 1985 ERM also applied for approval to process PCB transformers so they could be salvaged, but EPA did not approve this application.

EPA region VII first inspected ERM on September 18, 1984, in response to a third party complaint about PCBs possibly contaminating food grain stored next door to ERM. EPA found two violations of PCB storage regulations and proposed a penalty of \$18,750 on December 12, 1984. On March 12, 1985, EPA agreed to waive \$7,500 of the penalty if ERM corrected the storage deficiencies. Between September 16, 1985, and March 20, 1986, EPA inspected ERM operations four times and issued a civil administrative complaint on September 2, 1986, with total proposed penalties of about \$1.6 million. The violations for which these penalties were proposed included the following:

- ERM did not maintain adequate records of the acquisition, processing, and disposal of PCB and PCB-contaminated items as required by PCB regulations.
- ERM did not operate its PCB process as required by the permit conditions (i.e., oil was processed with PCB concentrations higher than authorized by its permit, waste from the PCB destruction process was not disposed of in a landfill as required, and processed oil contained PCBs in excess of the approved limits).
- PCB materials were not properly marked.

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EPA inspected ERM again on August 28, 1986, and September 30, 1986. The August 28, 1986, inspection report lists 31 possible violations, and the September 30, 1986, inspection report lists several additional violations. Regional officials told us that violations found during these two inspections would also be considered while resolving the violations from the four previous inspections.

On August 28, 1986, EPA advised ERM that it would not renew the permit for the current PCB destruction process at ERM's facility at 45 Ewing Street, Kansas City, Kansas, because the site is located in a 100-year flood plain. Furthermore, EPA would not issue any permit to ERM until it had evidence that ERM had corrected all past violations of PCB regulations and of operating conditions required by the permit. On October 27, 1986, ERM notified EPA that it was moving the site of its PCB oil destruction process to 1220 Wyoming Avenue, Kansas City, Missouri. EPA informed ERM that it would not issue a permit for the new site until the old site was closed and cleaned of any PCB contamination.

The civil complaint against ERM was settled April 1, 1987, as a part of the consent agreement discussed previously for PCB, Inc. Like PCB, Inc., ERM did not meet the cleanup deadlines required by the consent agreement. As of January 1988, EPA had taken no further action against either company because both sites were being cleaned and the region is continuing to monitor the cleanup.

Environmental International Electrical Services, Inc.

Environmental International Electrical Services, Inc. (EIES), received a research and development permit in April 1983 to test an alternative disposal process for PCB transformers at its facility located in Kansas City, Kansas. This was 1 month after the company was incorporated in March 1983. EIES demonstrated to EPA in October 1983 that its process could decontaminate PCB transformers. Essentially, drained transformers are rinsed to reduce PCB contamination, disassembled, and then the individual parts are cleaned of PCBs. EPA, however, required some modifications to the process and did not approve a 6-month interim permit until June 1984. EIES then completed its transformer processing line and received an EPA permit to start commercial operations effective December 1, 1984, through December 1, 1987.

Ownership of EIES has changed several times since it was incorporated. In late 1985 EIES became a subsidiary of PCB, Inc., and in May 1986 the Envirosure Management Corporation, a company involved in hazardous waste management, acquired control of EIES.

EPA inspected EIES once during the company's first 2 years. EPA performed an inspection in November 1984 to verify compliance with PCB regulations before granting EIES a permit to start commercial operations of its PCB disposal process. EPA found that 135 PCB transformers were in

storage for disposal too long and also found cracks in the floor and curbing. As a result, EPA filed a civil administrative complaint proposing a \$20,000 penalty.

Beginning in July 1985, EPA conducted six more inspections over a 6-month period, which resulted in two more civil administrative complaints against EIES. The first of these complaints was based on three July 1985 inspections: the first detected metal, which was sold by EIES for scrap, and which had not been sufficiently cleaned of PCBs; another found storage violations; and the third detected disposal, marking, storage, and record-keeping violations. EPA proposed a penalty of \$149,000. The second civil complaint was based on two December 1985 inspections and one January 1986 inspection, and proposed a penalty of \$72,000. The first December 1985 inspection found that PCB items were not properly stored, and the second detected violations for improper storage of PCBs, improper marking, and failure to keep required records. The January 1986 inspection again detected improper storage and disposal of PCBs.

Settlement of the three civil actions was consolidated, and EPA and EIES reached an agreement on December 1, 1986. EIES paid \$73,000 of the \$241,000 in proposed penalties. EIES was also required to correct all violations, including providing suitable site closure plans and financial assurance that the company's PCB sites would be properly cleaned when closed.

EPA conducted two more inspections during 1986, one in October before the civil actions were settled and one in December after the settlement. Both inspections took place after Envirosure took control of EIES, and both detected numerous violations of PCB regulations and EPA permit conditions. About 3 weeks after the December 1986 inspection, EPA notified EIES that it intended to suspend the disposal permit because

- inspections prior to October 1986 resulted in three civil actions for violating PCB regulations and not following permit conditions;
- inspections in October and December 1986 showed more violations, and some previous problems still existed even though EIES had certified that they were corrected;
- a supposedly cleaned transformer was found still to be contaminated with PCBs; and
- significantly high levels of PCBs were found both inside and outside of EIES' processing facility.

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Subsequent agreements reached between EPA and EIES led to EPA extending the deadline by which it would a make a final decision whether to suspend the approval because (1) EIES was no longer operating the PCB disposal process and (2) EIES had agreed to clean up its PCB-contaminated processing and storage facilities by March 9, 1987. However, on March 19, 1987, EPA notified EIES that it had not met the deadline, and on March 27, EPA notified EIES that it was suspending the permit to dispose of PCB transformers until EIES complied with all conditions of the permit.

During the first 3 months of 1987, EPA inspected EIES facilities 16 times. The inspectors generally found that EIES was cleaning the sites but that violations of PCB regulations still existed. For example, a pile of PCB-contaminated dirt was left uncovered, allowing the wind and rain to spread PCBs into the environment.

EPA continued inspecting EIES facilities after the notice to suspend the permit was issued. Between April 1, 1987, and August 13, 1987 (the day before a new consent agreement was reached), EPA made 15 more inspections. EPA essentially found that EIES was continuing to clean up its facilities but that some violations continued. For example, cracks in storage area floors were not repaired, the roof and a PCB transformer were both leaking, and a sewer drain in the storage area was not plugged to prevent any PCB leaks or spills from entering the sewers.

The August 1987 consent decree resulted from EIES failing to meet conditions of the December 1986 settlement agreement and continuing to violate PCB regulations. The decree required EIES to

- conclude cleanup of its processing facility and come into complete compliance with all regulatory requirements by September 28, 1987;
- properly close and conclude all cleanup activities at the storage facility by December 12, 1987;
- require that an independent, comprehensive environmental audit of both sites to be completed by November 30, 1987; and
- establish a closure fund of \$1 million.

The decree also provided that an injunction could be issued against EIES to cease operations if EIES was found to be shipping unclean metal, changing the process without permission, not correcting violations within 15 days, or improperly disposing of PCBs.

This August decree called for EIES to pay an additional \$100,000 penalty by August 1, 1988. It also provided for another \$100,000 penalty if EIES failed to meet, in a timely and proper fashion, the conditions set out for the storage site, and another \$100,000 penalty if it failed to meet the conditions set for the company's processing site. EIES' permit expired on December 1, 1987.

After the consent decree was signed, EPA made three more inspections of EIES operations by the end of September 1987. The last, on September 23, showed that EIES was cleaning up its site and was still not operating its PCB disposal process. The inspection report noted that EIES had demonstrated to EPA its revised process for destroying PCBs. The company still intends to obtain a new permit to continue processing PCB transformers and, in fact, region VII is reviewing its permit application.

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